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### REMARKS

Applicants appreciate the thorough review of the present application as reflected in the Office Action mailed June 14, 2005. Applicants also appreciate the indication of allowable subject matter in Claims 5-7, 8-10, 21, 23-26, 36 and 38-44. Claim 35 has been amended to correct a typographical error therein, therefore, Applicants respectfully request withdrawal of the objections with respect to Claim 35. Furthermore, Applicants have amended Claims 8, 23 and 28 as suggested in the Office Action and, therefore, submit that the claims are in compliance with 35 U.S.C. § 112. Applicants have also amended Claims 3, 50 and 52 as set out above. Applicants respectfully submit that the pending claims as set out above are patentable over the cited references for at least the reasons discussed herein.

#### The Claim Objection

Claim 35 stands objected to as having "and" after the wrong recitation. See Office Action, page 2. Applicants have amended Claim 35 as set out above to place the "and" after the proper recitation. Accordingly, Applicants respectfully request withdrawal of the objection with respect to Claim 35.

#### The Section 112 Rejections

Claims 8, 23, 24, 28 and 29 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. See Office Action, page 2. In particular, Claims 8 and 23 are rejected because the recitation "the header translation set of translation rules" has insufficient antecedent basis. Claims 8 and 23 have been amended to depend from Claims 5 and 21, respectively, as suggested in the Office Action. Accordingly, Applicants respectfully request that the rejections with respect to Claims 8, 23 and 24 be withdrawn. Accordingly, Applicants submit that Claims 8, 23 and 24 are patentable over the cited references as indicated in the Office Action. See Office Action, page 17.

Furthermore, Claim 28 is rejected because the recitation "the set of translation rules" has insufficient antecedent basis. Claim 28 has been amended to depend from

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Claim 18 as suggested in the Office Action. Accordingly, Applicants respectfully request that the rejections with respect to Claims 28 and 29 be withdrawn.

**The Section 102 Rejections**

Claims 1, 17, 18, 20, 22, 27-29, 33 and 49-52 stand rejected under 35 U.S.C. § 102(e) as being anticipated by United Stated Patent Application No. 6, 535, 511 to Rao (hereinafter "Rao"). *See Office Action, page 3.* The Office Action states that Rao teaches each recitation of these claims. Applicant respectfully submits that many of the recitations of these claims is neither disclosed nor suggested by Rao. For example, Independent Claim 1 recites:

A method of processing a packet, comprising:

**translating Internet Protocol (IP) addresses located in a payload of the packet if at least one of a source address and a destination address located in a packet header has been previously translated.**

Independent Claims 34, 49 and 51 contain similar recitations to the highlighted recitations. Independent Claims 50 and 52 have been amended to include similar recitations to the highlighted recitations of Claim 1. Applicants respectfully submit that at least the highlighted recitations of Claim 1 are neither disclosed nor suggest by Rao.

The Office Action cites the following portion of Rao as teaching the recitations of Claim 1:

**Proceeding to decisional step 94, the translation engine 60 compares the protocol and port data 40, 42, and/or 44 of the received packet 30 to the protocol and port fields 74 and 76 in the application table 68 to determine whether the packet 30 is of a type capable of including embedded addressing information 46. If the protocol and port data 40, 42 and/or 44 for the packet 30 are not listed in the application table 68, then the packet 30 is determined not to be capable of including embedded addressing information 46 and the No branch of decisional step 94 and leads to step 106, which is described in more detail below. However, if the protocol and port data 40, 42 and/or 44 for the packet 30 are listed in the application table 68, the packet 30 is of a type capable of including embedded addressing information 46 and the Yes branch of decisional step 94 leads to decisional step 96.**

*See Rao, column 5, line 60 to column 6, line 7 (emphasis added).* In other words, the protocol and port data (40, 42 and 44) of Rao is examined to determine a "type" of

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packet and if this "type" of packet could possibly include embedded addressing information. In contrast, Claim 1 of the present application recites determining "if at least one of a source address and a destination address located in a packet header has been previously translated" and translating IP addresses located in a payload of the packet if it is determined that the source address and/or the destination address located in the packet header has been previously translated. Thus, according to embodiments of the present invention, if the source and/or destination address in the header has been previously translated, the IP addresses in the payload are translated regardless of a "type" of the packet. Nothing in Rao discloses or suggests the recitations of Claim 1 for at least these reasons.

Furthermore, the paragraph of Rao immediately preceding the paragraph set out above states:

Referring to FIG. 4, the method begins at step 90 in which a packet 30 is received at the router 16. Generally described, translation happens from upper layers down i.e. application payload translation happens first and then transport protocol header and then IP protocol header will be translated. This is because, modifications to the payload data due to address information translation can result in changes to the transport protocol header and IP protocol header.

See Rao, column 5, lines 52-59 (emphasis added). In other words, Rao discusses determining if the "type" of packet could possibly include embedded addressing information and, if so, first translating the payload and then translating the header(s). Thus, Rao specifically teaches away from the recitations of Claim 1 as the IP addresses in the header(s) of Rao are not "previously translated" (translated before the payload) as recited in Claim 1. Accordingly, Claim 1 is patentable over Rao for at least these additional reasons.

Accordingly, independent Claims 1, 34, 49 and 50-52 are patentable over Rao for at least the reasons discussed above. Furthermore, the dependent claims are patentable at least per the patentability of the independent base claims from which they depend.

Many of the dependent claims are also separately patentable over Rao. For example, Claim 17 recites "wherein the at least one of the source address and the destination address located in the packet header is previously translated by a router." Claims 33 and 48 contain similar recitations. As discussed above, nothing in Rao

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discloses or suggests previously translating the source and/or destination address. Thus, it follows that nothing in Rao discusses a method of this previous translation. Accordingly, dependent Claims 17, 33 and 48 are separately patentable over Rao for at least these reasons.

### The Section 103 Rejections

A. Claims 2-4, 11-14, 19, 30, 34, 35, 37, 45 and 48 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rao in view of United States Patent No. 6,058,431 to Srisuresh *et al.* (hereinafter "Srisuresh"). *See* Office Action, page 8. Applicants respectfully submit that many of the recitations of these claims are neither disclosed nor suggest by the cited references. For example, Independent Claim 34 recites:

A system for processing a packet, comprising:  
a first network address translator (NAT) device that translates at least one of a source address and a destination address located in a packet header; and  
a second NAT device that translates Internet Protocol (IP) addresses located in a payload of the packet if at least one of the source address and the destination address has been previously translated by the first NAT device.

Applicants respectfully submit that at least the highlighted recitations of Claim 34 are neither disclosed nor suggested by the cited combination.

The Office Action states that Rao provides most of the recitations of Claim 34 and points to Srisuresh as providing the missing teachings. *See* Office Action, pages 12-13. As discussed above, nothing in Rao discloses translating IP addresses located in a payload of the packet if at least one of the source address and the destination address has been previously translated as recited in Claim 34. Thus, for at least the reasons discussed above with respect to Claim 1, Applicants respectfully submit that independent Claim 34 and the claims that depend therefrom are patentable over the cited combination.

Furthermore, the Office Action admits that Rao does not teach first and second NATs as recited in Claim 34. *See* Office Action, page 13. In particular, the Office Action states:

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... It is generally considered to be within the ordinary skill in the art to shift the location of parts absent a showing of unexpected results. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to shift the location of translation of the packet header from the device to a particular first device, and to shift the location of translation of IP addresses in a payload from the device to a particular second device, since it is generally considered to be within the ordinary skill in the art to shift the location of parts absent a showing of unexpected results. . .

See Office Action, page 13. Applicants respectfully disagree. The specification of the present application specifically discusses the use of two NAT devices, one located between service providers and one associated with the customer's network. See Specification, page 6, line 30 to page 7, line 18. Thus, some embodiments of the present invention may be used to bypass the header translation at the NAT between service providers (CNAT 340, Figure 3) that had previously been done at the NAT associated with the customer's network (NAT Device 330, Figure 3). Nothing in Rao discloses or suggests two devices or the need to bypass translating the header. In fact, as discussed above with respect to Claim 1, Rao discusses translating the header(s) after the payload. Thus, one of skill in the art would not be motivated to split up the operations of the device discussed in Rao as suggested in the Office Action. Furthermore, even if the operations of the device in Rao were split, the recitations of Claim 34 would still not be met. Accordingly, Applicants submit that independent Claim 34 is patentable over the cited combination for at least these additional reasons.

Accordingly, Applicants respectfully submit that none of the cited references, either alone or in combination, disclose or suggest the recitations of independent Claim 34 and, therefore, submit that independent Claim 34 is patentable over the cited references for at least the reasons discussed herein. Furthermore, the dependent claims are patentable at least per the patentability of the independent base claims from which they depend.

Many of the dependent claims are also separately patentable over the cited references. Claims 2 and 3 contain details with respect to "determining if at least one of the source address and the destination address located in the packet header has been previously translated." Claim 35 contains similar system recitations. As discussed above with respect to Claim 1, nothing in Rao discloses or suggests these recitations of the claims. Accordingly, it follows that nothing in Rao discloses or suggests the

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details with respect to these recitations. Thus, dependent Claims 2, 3 and 35 are separately patentable over the cited references for at least these reasons.

B. Claims 15, 31 and 46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rao in view of United States Patent No. 6,775,277 to Li *et al.* Claims 16 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rao in view of United States Patent No. 5,793,763 to Mayes *et al.* Claim 47 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Rao in view Srisuresh and in view of Mayes. As discussed above, the dependent claims are patentable at least per the patentability of the independent base claims from which they depend.

**There is No Motivation to Combine the Cited References**

Furthermore, there is no motivation to combine the cited references as suggested in the Office Action. As affirmed by the Court of Appeals for the Federal Circuit in *In re Sang-su Lee*, a factual question of motivation is material to patentability, and cannot be resolved on subjective belief and unknown authority. See *In re Sang-su Lee*, 277 F.3d 1338 (Fed. Cir. 2002). It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher." *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 U.S.P.Q. 303, 312-13 (Fed. Cir. 1983).

The Office Action states, among other reasons, that it would have been obvious to combine Rao and Srisuresh "in order to provide reduced cost of equipment and reconfigurations while accommodating a plurality of different protocols for improved flexibility." See Office Action, page 9. This motivation is a motivation based on "subjective belief and unknown authority", the type of motivation that was rejected by the Federal Circuit in *In re Sang-su Lee*. In other words, the Office Action does not point to any specific portion of the cited references that would motivate one of skill in the art to combine the cited references as suggested in the Office Action. If the motivation provided in the Office Action is adequate to sustain the Office's burden of motivation, then anything that would "reduce cost of equipment" would render a combination obvious. This cannot be the case. Accordingly, the statement in the

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Office Action with respect to motivation does not adequately address the issue of motivation to combine as stated in *In re Sang-su Lee*. Thus, it appears that the Office Action gains its alleged impetus or suggestion to combine the cited references by hindsight reasoning informed by Applicants' disclosure, which, as noted above, is an inappropriate basis for combining references. Furthermore, even if Rao and Srisuresh could be properly combined, the combination of Rao and Srisuresh would not teach the recitations of the claims of the present application for at least the reasons discussed above. Similar arguments apply to the combinations of Rao, Mayes and Li.

Accordingly, Applicants respectfully submit that independent Claim 34 and dependent Claims 2-4, 11-16, 19, 30, 31-32, 35, 37 and 45-48 are patentable over the cited combination for at least these additional reasons.

#### CONCLUSION

In light of the above discussion, Applicants submit that the present application is in condition for allowance, which action is respectfully requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (919) 854-1400.

Respectfully submitted,



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